**IT Applications Unit 3, AOS 2, Organisations and Data Management**

**Developing a RDMS, p 113-119**

**In creating the database the following is carried out:**

Creating the tables and relationships

Setting up the queries

Input forms

Creating macros

**Testing the solution, p 115**

1. Why is testing carried out?

Testing is a necessary step in problem solving. Testing the product is done to ensure that all features and functions work correctly and that the information produced is free of errors.

1. Distinguish between informal and formal testing.

Informal testing occurs during the development phase. AS software developers create a solution, they are constantly testing to see if the solution behaves according to expectation. And formal testing involves testing the overall solution after it has been completed to see if it solves the problem. This type of testing is formalised with comprehensive documentation of each test and each test outcome.

1. Formal testing:
   1. Bench Test
      1. What does a bench test entail?

In the bench test it need chosen with a range of data to see the result of the solution whether calculations are performed correctly and how erroneous data is handled by validation techniques. For each piece of sample test data, the expected outcome is determined and compared with the observed response of the solution.

* 1. Describe User acceptance testing.

As well as testing the formulas and functions of the solution, you must ensure that it meets the actual needs of the intender users. This is called user acceptance testing.

1. Testing validation
   1. Testing should test the boundaries of the validation rule. What does this mean?

This means ensures that during testing process to choose data that a simple rule of thumb is to test a value before the value itself and one value greater than the value in the validation rule.

1. Testing the query

Queries need to be tested to ensure that they work correctly. Once you have created a set of test data, manually check the test data to identify the records that meet the criteria specified in the query.

1. Testing formulas

Regardless of the location of formulas, each one needs to be tested. It is a matter of choosing appropriate test data for which it is easy to determine if the final result is accurate or not.

1. During which stage of the PSM does testing take place?

Informal testing is during the development stage, formal testing is after overall solution has been done and bench testing is during the design stage.

1. Why is testing performed during this stage?

Because it can give the feedback at this stage and give the direction of the outline.